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<http://www.nhk.or.jp/strl/index-e.html>

## NHK Technology

### Promoting the latest NHK technologies at IBC 2015

NHK introduced its latest research related to 8K Super Hi-Vision and other advances at IBC 2015<sup>1</sup>, which was held in Amsterdam from September 10th to 15th. IBC is the largest trade show of broadcasting equipment in Europe, and the event was attended by over 50,000 people from more than 170 countries this year.

The NHK booth was located in the "Future Zone," which gathered the latest technologies within the very large IBC exhibition hall. The first high-dynamic-range (HDR) 8K display developed in the industry was exhibited in the booth. An article featuring this display as well as the work leading up to the start of 8K test satellite broadcasting this year was on page 1 of the IBC Daily News (Sept. 12), which was distributed at the venue. As a result, even more people than usual visited the booth, and many expressed their hopes for the new 8K HDR system, with comments such as "I'm amazed at its sense of realism," and "When will it be available?"

New technologies for the upcoming 8K test satellite broadcasting were also exhibited, including the MPEG Media Transport system (MMT)<sup>2</sup> that works over broadband networks and provides synchronized multi-view video, as well as a 22.2 multichannel loudspeaker for 8K programs.

In addition, new 8K content was presented on an 85-inch LCD display. Many visitors were

able to experience the strong sensations from the images and sound of the Aomori Nebuta Festival, the quintessential summer festival in Japan, and a title match from Wimbledon tennis tournament held in the UK.

#### Report on research toward 8K broadcasting

More than 80 presentation sessions were held at IBC 2015, and they reported broadcasting-related businesses and some of the latest technologies being developed. NHK gave presentations on the HDR video system for 8K broadcasting, an 8K video coder supporting HEVC/H.265<sup>3</sup>, and 8K satellite transmission tests performed at the NHK STRL Open House 2015. These presentations featured lively question and answer sessions and received much interest from specialists in attendance.

NHK STRL will continue to promote its research such as on 8K Super Hi-Vision and Internet technologies in order to create broadcasting and other services of the highest standards for the 2020 Tokyo Olympics and Paralympics.

\*1 IBC: International Broadcasting Convention

\*2 MPEG Media Transport (MMT): A multiplexing system that enables content to be delivered on multiple transmission paths such as broadcasting and telecommunications.

\*3 High Efficiency Video Coding (HEVC)/H.265: The latest video encoding format jointly standardized by the International Organization for Standardization and the International Electrotechnical Commission (ISO/IEC) and the International Telecommunication Union (ITU).



Exhibit



Exhibit



Presentation

## From the Editors

This year we will start the test satellite broadcasting of 8K Super Hi-Vision. CES 2016 was held in Las Vegas, United States in January, and 8K UHD TV displays were shown by several companies, some of which will be in the market soon. I believe these displays are very important for enabling the home viewing of 8K.

The annual open house of NHK STRL will be held from May 26 through May 29, 2016. Advanced technologies will be shown at the annual event including 8K Super Hi-Vision. We will also exhibit our vision of broadcast services with broadband and internet, the advanced production systems, and the integral 3D television. This event attracts around 20,000 visitors every year. We hope you will experience the evolution of our technologies derived from visions for future broadcasting services at the event.

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